NOTICE OF EXEMPTION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Hazardous Waste Management Program
Geology, Permitting, and Corrective Action Branch
5796 Corporate Avenue
Cypress, CA 90630

Project Title: Interim Measures #3 Emergency Groundwater Extraction and Management at Pacific Gas and Electric Company, Topock Compressor Station

Project Location – Specific: Topock Compressor Station, near Needles

Project Location – City: Unincorporated **Project Location – County:** San Bernardino

Description of Project:

Background

In February 2004, Department of Toxic Substances Control (DTSC) directed Pacific Gas and Electric Company (PG&E) to initiate immediate pumping, transport, and disposal of groundwater at the Topock site to ensure that groundwater containing chromium does not reach the Colorado River. Due to the influence of the Colorado River stage on groundwater levels (as described below), extracting groundwater at higher rates will be necessary to maintain the stated goal of hydraulic control. The stage in the Colorado River at the Topock site fluctuates (both daily and seasonally) in response to variations in the amount of water released by Davis Dam, located approximately 30 miles upstream.

Over the course of a year, river levels can fluctuate by as much as seven feet. Groundwater levels in wells near the river fluctuate in response to the river levels. The river provides recharge to the groundwater during times of rising river levels. During times of declining river levels, groundwater discharges to the river. For the current year 2004, the river levels will begin to decline in June and will continue to decline steadily through October. Beginning with the June 2004 decrease in river stage, the lowest river levels will occur in the period from October 2004 through January 2005. During the period of declining and low river levels, groundwater within the aquifer will tend to flow toward the river.

The pumping of the chromium plume at the MW-20 bench began in March, coincident with the period of rising river levels. During the spring, a pumping rate of approximately 20 gallons per minute was sufficient to maintain gradients away from the river. As the river levels begin to decline, the pumping rate must increase to overcome the natural tendency of the groundwater to flow toward the river. Space and treatment capacity limitations at the MW-20 bench make necessary the installation of additional facilities to extract, treat and manage the significantly higher groundwater flows required to maintain hydraulic control of the plume near the Colorado River.

Project Activities

Based on groundwater modeling projections by PG&E, extraction at approximately 130 gallons per minute (gpm) from the TW-2 extraction well will be required to provide an inward gradient during month of highest groundwater discharge rates (October 2004). The critical elements for this proposed project are the piping, conveyance of groundwater, construction of temporary treatment facilities, and development of a disposal method for the treated water.

Piping would be installed from the MW-20 bench to a proposed treatment facility on a parcel of land currently owned by the Metropolitan Water District (MWD) with San Bernardino County Assessor's parcel number 650-151-06. The proposed main piping and conveyance alignment for the project follows existing access roads and will avoid impact to the Topock Maze, other artifacts and historic features including Route 66. Buried piping would be placed in trenches except where aboveground crossings are necessary. Trenching along the roadway will minimize the disturbance to the hill sides and slopes around the MW-20 bench. The two effluent water lines to be contained in the trench would convey extracted water to the treatment system and pipe the treated water and reverse osmosis concentrate (brine stream) from the treatment facility to the discharge location and/or back to the MW-20 bench for off-site management.

The treatment process is a continuous process involving chromium (VI) reduction with ferrous chloride, precipitation with sodium hydroxide, and solids removal in a clarifier and microfilter. The resulting water will be polished with reverse osmosis equipment to reduce the amount of salt (measured as total dissolved solids) occurring naturally in the extracted groundwater for broader water reuse options. The reverse osmosis (RO) process produces two end streams: the RO permeate (low salt stream) and the RO concentrate or brine stream (high salt). The RO permeate stream can be reused for industrial process supply, injected back into the ground, or possibly discharged into the river. It is anticipated that the treatment process will comprise three modular treatment units with capacity of 20-30 gpm, 50-60 gpm, and 50-60 gpm. Each modular treatment system can be brought on line as flow increases throughout the year and shut down as flow requirements decrease.

PG&E proposes to inject the treated groundwater to minimize physical disturbance of the land and/or discharge the treated water back into the river under a National Pollutant Discharge Elimination System (NPDES) permit. Optionally, PG&E may reuse a portion of the treated water at the compressor station. The proposed injection well field location is near the southwest corner of Parcel 650-151-06.

Approval of the additional Interim Measure is subject to conditions that require additional workplans be submitted to DTSC for review and concurrence prior to construction activities or implementation. These include:

- Submittal of plans for interim increased pumping rates and batch treatment at the MW-20 bench area.
- A diagram of the route of the pipeline and submittal of a biological and cultural resource study that indicates that any resources have been avoided to the degree feasible.
- A study that evaluates additional extraction well locations and their sphere of influence.
- Additional design details on the continuous treatment system.
- A design and feasibility study that evaluates injection points for treated water and the capacity of these wells to meet the outputs of the treatment system.
- A study that evaluates the influence of injection and extraction on the existing groundwater plume.
- Design to permittable and implementable level for both alternative disposal methods for treated water, specifically the reuse for cooling water and discharge via NPDES permit directly to the Colorado River.
- Verification of the acquisition of the necessary property, easements and permits for the necessary activities from affected landowners and jurisdictions.

Name of Public Agency Approving Project: Department of Toxic Substances Control

Name of Person or Agency Carrying Out Project: Pacific Gas and Electric Company

Exempt Status: *(check one)*

☐ Ministerial (Sec. 21080(b)(1); 15268);
☐ Declared Emergency (Sec. 21080(b)(3); 15269(A));
☒ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
☐ Categorical Exemption. State type and section number: _____
☐ Statutory Exemptions. State code number: _____
☐ General Rule (Sec. 15061(b)(3))

Exemption Title: Title 14, Section 15269(c) Actions necessary to prevent an emergency.

Reasons Why Project is Exempt:

These project activities are necessary to prevent or mitigate an emergency situation wherein the waters of the Colorado River may be impacted with a hazardous constituent, chromium, which is in contaminated groundwater in close proximity to the river. Immediate action is necessary to contain and reverse the flow of groundwater away from the Colorado River. Commencement of the development of additional extraction, treatment, and treated water disposal capacity is urgent to assure that increased pumping rates will be available to respond to impending fluctuations of the Colorado River level.

Cultural and biological resource screening has been conducted to avoid impacts to sensitive areas. Regulatory agency permitting requirements will be addressed for the activities; however, expedited or emergency consideration will be sought. Local standards will be considered during project design.

Emergency approvals will not preclude DTSC from requiring additional interim measures and remedy changes or requiring additional environmental analysis for selection of a final remedy. The goal of the emergency approvals is to stabilize and control the problem to allow a return to the normal corrective measures evaluation and approval process.

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Lead Agency Contact Person	Phone #
Karen Thomas Baker	6/30/04
DTSC Branch Chief Signature	Date

Karen T. Baker, CHG, CEG,	Chief, Geology, Permitting, and Corrective Action Branch
DTSC Branch Chief Name	DTSC Branch Chief Title

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